



Hydroclear Power-D™ Engine Oil

Conoco Hydroclear Power-D™ Engine Oil is a premium universal fleet engine oil, formulated from high-quality, hydrocracked base stocks and unique proprietary additives, to provide exceptional soot control and superior protection against wear, deposits, varnish, rust and corrosion in the modern high-output diesel engines. It is a performance-proven, heavy duty engine oil designed for use in engines equipped with EGR (Exhaust Gas Recirculation) or other technologies to meet today's stringent emission requirements for on-highway trucks. Hydroclear Power-D™ Engine Oil is formulated to meet the increased demands for corrosion protection, soot handling and oxidation control in these low-emission engines caused by higher operating temperatures and recirculation of acidic exhaust products. From the exclusive combination of hydrocracked base oils and unique high-performance additives, Hydroclear Power-D™ Engine Oil provides excellent soot control resulting in cleaner engines, longer engine life and extended drain intervals. Hydroclear Power-D™ Engine Oil also is recommended for off-road service, including construction, forestry, mining, marine and stationary power generation.

Hydroclear Power-D™ Engine Oil SAE 15W-40 is an API CI-4 Plus quality oil that exceeds the performance requirements of Mack EO-N Premium Plus 2003, EO-M Plus; Cummins 20078, 20077; DDC Powerguard 93K214, Volvo VDS-3/VDS-2 and other leading U.S. and European OEM specifications. It meets the new Caterpillar ECF-1 specification and is recommended for use in all Caterpillar engines, including their modern ACERT engines. Hydroclear Power-D™ Engine Oil, in the appropriate viscosity grade, is recommended for use in most domestic and imported heavy-duty engines, including:

- Caterpillar
- John Deere
- Mack
- MTU
- Volvo
- Case IH
- Detroit Diesel
- MAN
- International
- Cummins
- Komatsu
- Mercedes Benz
- Perkins

**A Premium
Universal Fleet
Engine Oil For
Modern High-
Output Diesel
Engines**

**U.S. Technical
Services Hot line:
1-800-255-9556**

**U.S. Customer
Service:
1-800-640-1956**

**International:
+1-832-486-3363**

**Asia-Pacific:
tel: (65) 6536-0010
fax: (65) 6536-0012**

**E-mail address:
*conocolubricants@
conocophilips.com***

www.lubes.conoco.com

600 N. Dairy Ashford • 2W9000 • Houston, TX 77079



Outstanding Features

- Outstanding soot control in highly soot-laden oil to prevent soot caused viscosity change
- Superior ability to minimize deposits in piston-ring zone
- Excellent wear protection for critical components including piston rings, liners and bearings
- Reduce viscosity thickening due to high-soot levels commonly seen in EGR engines
- Very good resistance to oxidation and thermal breakdown
- Reduced varnish, sludge and carbon deposits
- Reduced oxidative oil thickening and maintain good cold-flow properties
- Increased engine protection and extend oil drain capability

Hydroclear Power-D™ Engine Oil Typical Properties

Product	Density	Pour °C (°F)	Flash °C (°F)	cSt at 40°C	cSt at 100°C	% SASH	Color ASTM	TBN	V.I.
Hydroclear Power-D 15W-40	0.879	-36 (-33)	229 (444)	116	15.2	1.49	L4.0	12.0	139
Hydroclear Power-D 10W-30	0.876	-36 (-33)	222 (432)	77.3	11.5	1.49	L4.0	12.0	142
Hydroclear Power-D SAE 30	0.879	-33 (-27)	240 (464)	92	11.1	1.18	L4.0	9.35	115
Hydroclear Power-D SAE 40	0.882	-33 (-27)	246 (475)	141	15.0	1.18	L4.0	9.35	111
Hydroclear Power-D SAE 50	0.892	-30 (-22)	262 (504)	214	20.0	1.18	L5.0	9.45	110

Due to continual product research and development, the information contained herein is subject to change without notification.

© 2005 ConocoPhillips Company. Conoco logo is a trademark of ConocoPhillips Company or its subsidiaries.



Hydroclear Power-D™ Engine Oil
Typical Properties

SAE Grade	15W-40	10W-30	30	40	50
API Service CI-4 Plus	X	n/a	n/a	n/a	n/a
API Service CI-4, CH-4, CG-4, CF-4	X	X	n/a	n/a	n/a
API Service SL, SJ	X	X	X	X	X
API Service SH	X	n/a	X	X	X
Caterpillar ECF-1	X	X	n/a	n/a	n/a
Mack EO-N Premium Plus 2003	X	n/a	n/a	n/a	n/a
Mack EO-M Plus, EO-M	X	X	n/a	n/a	n/a
Mack EO-L Plus, EO-L	X	X	n/a	n/a	n/a
Global DHD-1	X	n/a	n/a	n/a	n/a
Cummins CES 20078	X	n/a	n/a	n/a	n/a
Cummins CES 20077	X	n/a	n/a	n/a	n/a
Cummins CES 20076, 20071	X	X	n/a	n/a	n/a
Cummins CES 20072	X	n/a	n/a	n/a	n/a
ACEA E3, E7-04	X	n/a	n/a	n/a	n/a
Volvo VDS-3/VDS-2/VDS	X	n/a	n/a	n/a	n/a
Mercedes Benz 228.1, 228.3	X	n/a	n/a	n/a	n/a
MAN 271, 3275	X	n/a	n/a	n/a	n/a
MTU Type 2	X	n/a	n/a	n/a	n/a
DDC Powerguard 93K214, 7SE270	X	n/a	n/a	n/a	n/a
International TSI-02-12-20	X	X	n/a	n/a	n/a
Caterpillar T0-2	(1)	(1)	(1)	(1)	(1)
Allison C-4	(1)	(1)	(1)	n/a	n/a
Ford WSS-M2C171-D	X	X	n/a	n/a	n/a

X – Meets or exceeds specification

(1) – Recommended for application requiring this specification

n/a – not applicable

Due to continual product research and development, the information contained herein is subject to change without notification.

© 2005 ConocoPhillips Company. Conoco logo is a trademark of ConocoPhillips Company or its subsidiaries.